



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/658,923

09/09/2003

Frank C. Kohn

17396/09156

2292

45850

7590

09/19/2007

NELSON MULLINS RILEY & SCARBOROUGH, LLP
1320 MAIN STREET-17TH FLOOR
COLUMBIA, SC 29201

EXAMINER

PRYOR, ALTON NATHANIEL

ART UNIT

PAPER NUMBER

1616

MAIL DATE

DELIVERY MODE

09/19/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/658,923	Applicant(s) KOHN, FRANK C.	
	Examiner Alton N. Pryor	Art Unit 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 4,5,13,14,17 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6-12,15,16,18-20,22-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's arguments filed 6/14/07 have been fully considered but they are not persuasive. See discussion below.

Claim Rejections - 35 USC § 112

Rejection of claims 1-3,6-12,15,16,18-20,22-37 under 35 USC 112, 1st paragraph will maintained in light of amendment filed 6/14/07.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3,6-12,15,16,18-20,22-37 remain rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a written description rejection.

To satisfy the written description requirement, applicant must convey with reasonable clarity to one skilled in the art, as of the filing date that application was in possession of the claimed invention. The specification lists in paragraph 24 several suitable pesticides. However, the specification does not inform an artisan that these are the additional pesticides. The term "additional pesticides" occurs in the claims, but no additional pesticides are actually listed.

Claims employing additional pesticides are neither described nor exemplified and the specification does not inform the public of the limits of the monopoly asserted.

Art Unit: 1616

To satisfy the written description requirement, applicant must convey with reasonable clarity to one skilled in the art, as of the filing date that application was in possession of the claimed invention. There is no additional pesticide named or identified.

Response to Applicant's argument

The specification does not set forth examples of additional pesticide compounds that can be employed in the instant application. Applicant refers the examiner to paragraph 47 of the specification for the "additional pesticides". Examiner argues that paragraph 47 recites "other pesticides" not "additional pesticides" as recited in the claims. For this reason the rejection is maintained.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-3,6-12,15,16,18-20,22,23,25-35 remain provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 9-13,15-23 of copending Application No. 11072215. Although the conflicting claims are not identical, they are not patentably distinct from each other because both instant invention and patent disclose similar inventions. USPA '215 teaches the application of a composition comprising synthetic pyrethroid (See USPA '215 where permethrin is listed as a synthetic pyrethroid) and an additional insecticide to seeds (corn, soybean, cotton) with and without a transgenic event (heterologous gene derived from Bacillus, Rhizobium, Serratia) in order to protect developing plants from damage by pests such as larval from Lepidopteran sp. Insect, cutworms and corn borers. Seeds having transgenic event encodes for the expression of protein that is active against a first pest, with the composition comprising at least permethrin having activity against a second pest. Claims 10-12, 15, and 16 describe chemical and physical properties which are inherent to permethrin. The instant claims disclose application rate of greater than 200 gm pyrethroid (permethrin) per 100 kg seed. The instant invention claims an application rate equal to or greater than 88g of permethrin per 100 kg seed which encompasses the application rate claimed in USPN '093. It is obvious that one having ordinary skill in the art would have been expected to determine optimum application rate of permethrin to seed. One would have been motivated to do this in order to determine what application rate is effective at controlling pests while at the same time promoting

healthy plant (wheat) growth. Where the prior art teaches an application rate that is encompassed by the instant claims, applicant must present a showing of the criticality of the application rate claimed.

Claims 1-3,6-12,15,16,18-20,22,23,25-35 remain provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1,9-25 of copending Application No. 11028782. Although the conflicting claims are not identical, they are not patentably distinct from each other because both instant invention and patent disclose similar inventions. USPA '782 teaches the application of a composition comprising synthetic pyrethroid (See USPA '782 page 9 second full paragraph where permethrin is listed as a synthetic pyrethroid) and an additional insecticide to seeds (corn, soybean, cotton) with and without a transgenic event (heterologous gene derived from Bacillus, Rhizobium, Serratia) in order to protect developing plants from damage by pests such as larval from Lepidopteran sp. Insect, cutworms and corn borers. Seeds having transgenic event encodes for the expression of protein that is active against a first pest, with the composition comprising at least permethrin having activity against a second pest. Claims 10-12, 15, and 16 describe chemical and physical properties which are inherent to permethrin. The instant claims are silent to rate of application rate of permethrin to seed (application rate equal to or greater than 88g of permethrin per 100 kg seed). It is obvious that one having ordinary skill in the art would have been expected to determine optimum application rate of permethrin to seed. One would have been motivated to do this in order to determine what application rate is effective at controlling pests while at the same time promoting

Art Unit: 1616

healthy plant (wheat, corn, cotton) growth. It is possible that artisan would have discovered that instant application rate is most effective. Where the prior art teaches all claim limitations with the exception of a defined application rate as instantly claimed applicant must present a showing of the criticality of the application rate claimed.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Applicant's argument regarding USANs '215 and '782

Rejection of claims under provisional obviousness-type double patenting with respect to USANs 11/072215 and 11/028782 will be maintained in light of amendment filed 6/14/07. Applicant's willingness to consider the filing a terminal disclaimer at a later time is acknowledged.

Claims 1,9-12,15,16,18,19,24 remain rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4,7,14-16,18-21,24-29,31 of U.S. Patent No. 6713077. Although the conflicting claims are not identical, they are not patentably distinct from each other because both instant invention and patent disclose similar inventions. USPN '077 teaches the application of a composition comprising permethrin and an additional insecticide to seeds (corn, soybean, cotton) in order to protect developing plants from damage by pests. Claims 10-12, 15, and 16 describe chemical and physical properties that are inherent to permethrin. The instant claims are silent to rate of application rate of permethrin to seed (application rate equal to or greater than 88g of permethrin per 100 kg seed). It is obvious that one having ordinary skill in the art would have been expected to determine

Art Unit: 1616

optimum application rate of permethrin to seed. One would have been motivated to do this in order to determine what application rate is effective at controlling pests while at the same time promoting healthy plant (wheat, corn, cotton) growth. It is possible that artisan would have discovered that instant application rate is most effective. Where the prior art teaches all claim limitations with the exception of a defined application rate as instantly claimed applicant must present a showing of the criticality of the application rate claimed.

Response to Applicants' argument regarding USAN '077

Applicant argues that USPN '077 does not suggest the addition of a pesticide to the permethrin. Examiner points applicant to column 5 lines 24-30 of USPN '077 where it lists suitable pesticides that can be added to the permethrin. Applicants further argue that instant claims require that an additional pesticide is added as part of the composition along with the pyrethrin or synthetic pyrethroid and then the composition comprising both the pyrethrin or synthetic pyrethroid and additional pesticide is applied to the seed. On the other hand, USPN '077 does not make it obvious to apply to seed a single composition comprising both the pyrethrin or synthetic pyrethroid plus the additional pesticide. Examiner argues in the absence of unexpected results it would have been obvious to try applying to seed a single composition comprising both the pyrethrin or synthetic pyrethroid plus the additional pesticide since joint and separate application of active chemicals is commonly practiced in the pesticidal art.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3,6,25-27 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Gatehouse et al (Pesticide Science, 1982, vol. 13 no. 2, 109-18) and Maskell et al (Chemical control of wheat bulb fly attacking winter wheat in eastern England, Annals of Applied Biology, 1986, 109 (2), 223-236). Gatehouse teaches a method of applying permethrin (pyrethroid) to seed of winter wheat crops to protect wheat from becoming damaged by wheat bulb fly larvae (pests). Method results in the seed being treated with permethrin, which is also protected from becoming damaged by said pests. See abstract. Permethrin is a synthetic pyrethroid, which has a vapor pressure that is lower than that of tefluthrin. See instant claim 2. Gatehouse does not teach the invention comprising additional pesticide. The reference does not teach the control of cutworm damage. The reference abstract is silent to rate of application rate of permethrin to seed (application rate equal to or greater than 88g of permethrin per 100 kg seed). However, Maskell teaches a method of applying pyrethroid compositions comprising a synthetic pyrethroid and an organophosphate (additional pesticide) to seed of winter wheat crops to protect wheat from becoming damaged by wheat bulb fly (pests). Method results in the seed being treated with synthetic pyrethroid and organophosphate, which is also protected from becoming damaged by said pests. See abstract. It would have been obvious to one having ordinary skill in the art to combine

Art Unit: 1616

Maskell and Gatehouse to arrive at elected invention comprising permethrin and organophosphate. One would have been motivated to do this since each invention individually teach a method of controlling wheat bulb fly in wheat. Note both instant invention and prior art discloses the same active step, i.e., application of permethrin or synthetic pyrethroid to seed. It is obvious that the same benefit acquired in Applicant's (control of cutworms) would have been effective in Gatehouse's and Maskell's invention. One would have expected this since prior art and instant inventions teach the application of permethrin (or synthetic pyrethroid) to wheat seeds. It is obvious that one having ordinary skill in the art would have been expected to determine optimum application rate of permethrin or synthetic pyrethroid to seed. One would have been motivated to do this in order to determine what application rate is effective at controlling pests while at the same time promoting healthy plant (wheat) growth. It is possible that artisan would have discovered that instant application rate is most effective. Where the provide teaches all claim limitations with the exception of a defined application rate as instantly claimed applicant must present a showing of the criticality of the application rate claimed.

Response to Applicant's argument

Applicant argues that neither Gatehouse nor Maskell suggests the addition of a pesticide to the permethrin. Applicant further argues that instant claims require that an additional pesticide is added as part of the composition along with the pyrethrin or synthetic pyrethroid and then the composition comprising both the pyrethrin or synthetic pyrethroid and additional pesticide is applied to the seed. On the other hand, neither

Art Unit: 1616

Gatehouse nor Maskell makes it obvious to apply to seed a single composition comprising both the pyrethrin or synthetic pyrethroid plus the additional pesticide.

Examiner argues in the absence of unexpected results it would have been obvious to try applying to seed a single composition comprising both the pyrethrin or synthetic pyrethroid plus the additional pesticide since joint and separate application of active chemicals is commonly practiced in the pesticidal art.

Election Status

Elected invention comprising permethrin is not allowable. See rejection above.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Telephonic Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alton N. Pryor whose telephone number is 571-272-0621. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

Art Unit: 1616

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Alton Pryor', is written above the printed name.

Alton Pryor
Primary Examiner
AU 1616